



AP 2005  
1755

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: A. M.-E. Lafuente,	)	RE: SUPPLEMENTAL SUBMISSION
et al.	)	
	)	
Serial No.: 09/299,539	)	Date: March 4, 2005
	)	
Filed: April 26, 1999	)	Examiner: J. Pasterczyk
	)	
For: "CATALYTIC SYSTEMS FOR THE	)	Group Art Unit: 1755
POLYMERIZATION . . ."	)	
	)	Our Ref: B-3643 617072-2 JP
	)	

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This supplemental submission supplements the submission that was filed with a certificate of mailing dated February 28, 2005. Before issuing the next Office Action on the merits, please enter the following remarks into the prosecution history of the above-identified U.S. patent application without prejudice or disclaimer.

The remarks begin on page 2 of this response.

**REMARKS**

The submission that was filed with a certificate of mailing dated February 28, 2005 is missing a formula on page 6. Therefore, we are enclosing herewith a replacement page 6, which includes the missing formula. Before issuing the next Office Action on the merits, please amend the February 28, 2005 submission by replacing the originally filed version of page 6 with the enclosed replacement page 6, which includes the missing formula. Then, please consider the amended February 28, 2005 submission on the merits when you issue the next Office Action on the merits.

If the Examiner has any questions, please contact the undersigned.

In view of the foregoing, favorable reconsideration of the amended application is respectfully requested. It is submitted that the claims of record are in condition for allowance. Allowance of the claims at an early date is solicited.

The Applicants reserve the right to seek protection for any unclaimed subject matter either subsequently in the prosecution of the present case or in a divisional or continuation application.

The Commissioner is authorized to charge any additional fees which may be required or credit overpayment to Deposit Account No. 12-0415. In particular, if this Amendment is not timely filed, then the Commissioner is authorized to treat this Amendment as including a petition to extend the time period pursuant to 37 C.F.R § 1.136(a) requesting an extension of time of the number of months necessary to make this Amendment timely filed; and the

petition fee due in connection therewith may be charged to deposit account No. 12-0415.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first-class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

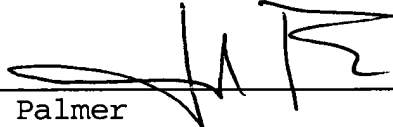
March 4, 2005  
(Date of Deposit)

JOHN PALMER  
(Name of Applicant, Assignee  
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Respectfully submitted,

  
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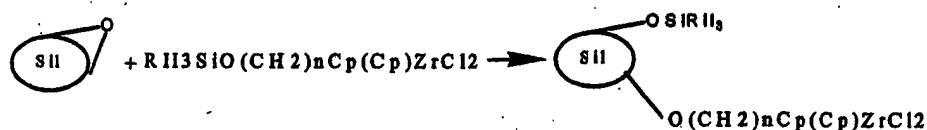
Enclosure: Replacement page 6 (1 page)

Hidalgo-Llinas document disclose or suggest using a metallocene compound with an  $\text{OSiR}^{\text{II}}_3$  functional group.

In order to illustrate more clearly the catalytic composition/system that is claimed by Claims 1 and 21, we are enclosing herewith a document entitled "Scheme 2," which shows Steps 1 and 2 and the possible catalytic compositions/systems that are formed. (Scheme 2 is a simplified summary showing some of the most probably generated catalytic compositions/systems and is rationally based on the best current scientific knowledge. However, the Applicants do not wish to be bound by any particular theory.)

In Claims 1 and 21, Si-O-Si siloxane groups are believed to remain after the inorganic support is reacted with the alumoxane (e.g., MAO), which reacts preferably and firstly with OH groups; and those remaining Si-O-Si siloxane groups are highly reactive with the  $\text{OSiR}^{\text{II}}_3$  functional group of the claimed metallocene compound.

The reactivity of the Si-O-Si siloxane groups has been reported by Dubois L.H. & Zegarsky B.R. (J. Am. Chem. Soc. 115, 1191-1193 (1993)) and by Blumel J. (J. Am. Chem. Soc. 117(7), 2112-2113 (1995)) and can be depicted as follows:



The reaction between the Si-O-Si siloxane groups and the  $\text{OSiR}^{\text{II}}_3$  functional group of the claimed metallocene compound allows for the apparent simultaneous interaction (with both silica and with